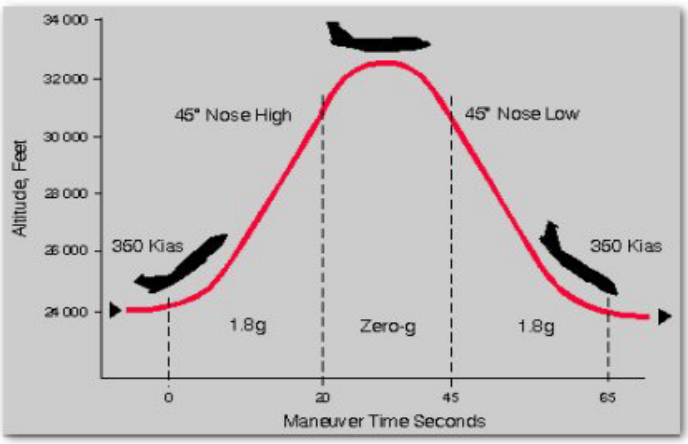
NASAExplorerSchoolsNews
A monthly newsletter for the teachers of tomorrow's explorers

Featured Mission

Training for Space

NASA's Reduced Gravity Program uses a KC-135 airplane to create short periods of weightlessness. The aircraft is flown on 2-3 hour missions achieving a state of weightlessness for its passengers 30-40 times for about 25 seconds each. Astronauts ride the KC-135 to get a taste of what it will be like to be in the "zero-g" environment of space. Astronauts are not the only people who use the KC-135. Any scientist who has an experiment to run and a strong stomach can apply for time aboard the KC-135.

In April, three NES educator teams will run experiments onboard the KC-135. Those teams are led by: Bill Lindquist and Alissa Kuseke of Crossroads Elementary School in Saint Paul, MN; Craig Cadman and Lisa Stoner of Sioux Central Middle School in Sioux Rapids, IA; and Jane Swartz and Coralynn Malmberg of Pender Public Schools in Pender, NE. All NES teachers can log into the school teams section of the NES website to access the selected proposals.



jsc-aircraft-ops.jsc.nasa.gov/kc135

Bytes and Bits

What does "g" mean? The lower case "g" is scientific shorthand for gravity. The gravitational attraction between the mass of the Earth and our bodies keeps us on the surface of the Earth and gives us the sensation of weight. The gravity you experience on the surface of Earth equals 1 g, on the Moon it's 0.15 g, and on Mars it's 0.38 g. When you get far enough away from the surface of an object, or when you are in the KC-135 accelerating to cancel the effects of gravity, you experience the feeling of weightlessness.

To get a glimpse of the microgravity environment on the KC-135 during flight, download an 11-minute video.

microgravityuniversity.jsc.nasa.gov

NASA Explorers are people like you

Name: Nancy Hall
Education: B.S. Space Sciences, M.S. Mechanical Engineering
Job Title: Aerospace Engineer/Research Scientist

Nancy Hall is a microgravity expert on NASA's KC-135. Nancy assists other researchers when they require the use of the KC-135 for their experiments. She is also a project scientist who tests and reviews experiments that eventually fly on the Space Shuttle or Space Station. Nancy credits her sixth grade science teacher with inspiring her love of science. Nancy started working at NASA's Glenn Research Center in 1990 on the "Space Station Freedom" project. She specializes in the study of the behavior of liquids in a microgravity environment. Nancy says, "I guess the best advice I can give is for you (as students) to study hard in school and do what it takes to pursue your interests." Outside of work, Nancy is an amateur radio operator. She also enjoys reading science fiction, collecting stamps, playing the piano, and collecting trading cards.

quest.nasa.gov/people/bios/women/halln.html

Activity Corner

Join Earth Crew

NASA is currently recruiting students and family or teacher sponsors to join the NASA Earth Crew. Earth Crew members receive emails about new projects, participate in exploration-related activities, watch special webcasts and can even give input to upcoming NASA missions. It's a great way for students and their families to get involved and show their support for NASA.

edspace.nasa.gov/earthcrew/earthcrew.html

NES Spotlight

Crossroads Elementary School (www.spps.org/crossroads)
Students: 381
Teaching staff: 26

Crossroads Elementary is a Science Magnet school located in the heart of Saint Paul, MN, just two miles from the state's capitol. Crossroads is a new school, first opening its doors to students in the fall of 1999, with an outstanding teaching staff committed to inquiry-based teaching and a year-round school calendar. The school has partnered with the Science Museum of Minnesota for professional development and special programming, which includes family science nights at the museum. The school also has a unique Go-Girls program, for their fifth and sixth grade girls interested in science. An intriguing feature of the school is its Inquiry Zone comprised of 80 work stations housing material representing all science disciplines where students are able to identify topics of interest, then develop and pursue investigations.